

REMARKS

Reconsideration is respectfully requested in view of the amendments and remarks herein.

Specification

The disclosure is objected to because of the following informalities:

- (A) At page 1 of the specification, the patent number 4,799,376 appears to be incorrect. U.S. 4,799,346 is the correct patent and the application is so amended. Applicants submit that the person of ordinary skill in the art, like the Examiner, would have recognized the error and could have easily found the correct patent number.
- (B) At pages 11 and 12, “the numerals that refer to the parts in the Figures are either not shown therein or are represented by different numerals in the Figures”. The specification is amended to correct the numbering, thus correcting an obvious mistake.
- (C) Page 22 refers to Figures 6 and 9. The application does not contain those figures. Reference to Figures 6 and 9 has been deleted.

Applicants thank the Examiner for pointing out the errors in the specification.

Claim Objections

Claim 3 is objected to because there is no antecedent basis for the term “the compatible component” in claim 3. Claim 3 is amended so that it has proper antecedent basis in claim 2.

Claim Rejection – 35 USC 112

Claims 8 and 9 are rejected under 35 USC 112, second paragraph, since they refer to figures. These claims are cancelled, so the rejection is now moot.

Double Patenting

Claim 1 is provisionally rejected under 35 USC 101 as claiming the same subject matter as that of claim 1 of co-pending patent applications 10/817484 and 10/817,628. This rejection is a statutory, same invention, double patenting rejection.

Statutory Double Patenting - 35 U.S.C. 101

Statutory double patenting under 35 USC 101 focuses on whether the same invention is being claimed twice. A statutory double patenting under 35 USC 101 is not appropriate when a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent.

MPEP 804 II. A. explains statutory double patenting as follows:

In determining whether a statutory basis for a double patenting rejection exists, the question to be asked is: Is the same invention being claimed twice? 35 U.S.C. 101 prevents two patents from issuing on the same invention. "Same

"invention" means identical subject matter. *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1984); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A reliable test for double patenting under 35 U.S.C. 101 is whether a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970). Is there an embodiment of the invention that falls within the scope of one claim, but not the other? If there is such an embodiment, then identical subject matter is not defined by both claims and statutory double patenting would not exist.

Consequently, applicants looked at the claims of the subject application and the co-pending applications to see whether a claim 1 of the subject application could be literally infringed without literally infringing the corresponding claim in the co-pending patent applications.

USSN 10/817,484

Claim 1 of the subject patent application is not directed to the same invention of co-pending patent application 10/817,484, published as US 2004-0221526 A1. This can be seen from the wording of the claims. Claim 1 of the subject application recites elements (5) and (6) as follows:

"(5) the attachment means is a clip useful for aligning and holding the laminate in a retaining channel of the support structure; (6) the clip further comprises an element that can be interlocked with a component of a second glazing element."

In contrast, claim 1 of the '484 patent application contains elements 5 and 6, which are reproduced below:

(5) the attachment means is a clip useful for aligning and holding the laminate inside of a retaining channel of the support structure; (6) the clip optionally comprises at least one interlocking extension useful for restricting rotational and/or transverse movement of the laminate within the channel and/or movement of the laminate out of the channel, and wherein the glazing does not require an external pressure plate for mounting to the support structure.

From the above excerpts from the claims, a number of differences between the claimed invention and claim 1 of the '484 application become quite evident. For instance, claim 1 of the invention is focused on a clip useful for aligning and holding the laminate in a retaining channel of the support structure. The clip of this invention further comprises an "element that can be interlocked with a component of a second glazing structure." Claim 1 of the '484 application does not specify that the clip "comprises an element that can be interlocked with a component of a second glazing structure." Consequently, each of claim 1 of the subject patent application and claim 1 of the '484 patent application can be infringed by different subject matter and withdrawal of the statutory double patenting rejection based upon USSN 10/817,484 is respectfully requested.

USSN 10/817,628

Claim 1 of the subject patent application is not directed to the same invention of co-pending patent application 10/817,628, published as US 2004-0234731 A1. This can be seen from the wording of the claims. Claim 1 of the subject application recites elements (5) and (6) as follows:

“(5) the attachment means is a clip useful for aligning and holding the laminate in a retaining channel of the support structure; (6) the clip further comprises an element that can be interlocked with a component of a second glazing element.”

In contrast, claim 1 of the ‘628 patent application contains element 5, which is reproduced below:

(5) the clip comprises at least one mechanical interlocking extension useful for restricting rotational and/or transverse movement of the laminate within the channel or movement of the laminate out of the channel.

From the above a number of differences between the claimed invention and claim 1 of the ‘628 application become quite evident. For instance, claim 1 of the invention is focused on a clip useful for aligning and holding the laminate in a retaining channel of the support structure. The clip of this invention further comprises an element that can be interlocked with a component of a second glazing structure.” Claim 1 of the ‘628 application does not specify that the clip “comprises an element that can be interlocked with a component of a second glazing structure.” In addition, the ‘628 application recites subject matter not claimed in claim 1 of the subject patent application. For instance, the clip of claim 1 of the ‘628 patent application “comprises at least one mechanical interlocking extension useful for restricting rotational and/or transverse movement of the laminate within the channel or movement of the laminate out of the channel.” Claim 1 of the subject patent application does not require the mechanical interlocking extension claimed in claim 1 of the ‘628 patent application.

Consequently, claim 1 of the subject patent application and claim 1 of the ‘628 patent application can be infringed by different subject matter and withdrawal of the statutory double patenting rejection based upon USSN 10/817,628 is respectfully requested.

Terminal Disclaimer

In order to expedite prosecution, and without admitting or denying the appropriateness of a non-statutory obviousness-type double patenting rejection between the co-pending patent applications, applicants are submitting terminal disclaimers with respect to the subject application and the co-pending applications cited in the statutory double patenting rejections.

Claim Rejections - 35 USC 102

Claim 1 stands rejected under 35 USC 102(b) as anticipated by WO 00/64670. The Action points to Figure 4. Claim 1 stands rejected under 35 USC 102(b) as anticipated by US 4,960,631 Walters et al. The Action points to Figure 1 and column 2, lines 33-37. Claim 2 stands objected to as dependent upon a rejected base claim, and the Action indicates it would be allowable if rewritten in independent form.

WO 00/64670

The invention of claim 1 of the subject patent application is not described in WO 00/64670.

One difference between the invention and the laminated transparency of the invention is that an element that can be interlocked with a component of a second glazing structure, whereas WO 00/64670 doesn't teach or suggest such a clip. Claim 1 of the subject application recites elements (5) and (6) as follows:

"(5) the attachment means is a clip useful for aligning and holding the laminate in a retaining channel of the support structure; (6) the clip further comprises an element that can be interlocked with a component of a second glazing element."

WO 00/64670 describes a glazing element having a transparent laminate secured to a structural support, and a process for preparing the same. (Abstract.) The laminate comprises at least one layer of glass (6D, 8D) having self-adhered directly to the layer of glass (6D, 8D) of thermoplastic polymer (7D), wherein the layer of thermoplastic polymer is attached to the structural support (10D) along the edges of the laminate. (Abstract.)

WO 00/64670 describes many different types of attachment, but there is no mention of a clip that can be interlocked with a component of a second glazing element as claimed.

According to page 3, lines 21-29:

The edges of the interlayer material of the laminate can be attached, either directly, or indirectly by some attachment means, to a structure that supports the laminate glazing structure (hereinafter support structure). The support structure can be a frame, or the laminate can be supported by bolts, screws, wires, nails, staples, or any other conventional means for supporting a glazing element. Attachment of the interlayer to the support can be from the top, sides, bottom, or through the interlayer material. While it is preferred that the support structure is a frame that surrounds the glazing structure, other support structures or means are not necessarily excluded.

Page 4, lines 9-26, state:

The interlayer is positioned between the glass plates such that the interlayer is exposed in such a manner that it can be attached to the surrounding frame. The interlayer can be attached to the support structure in either a continuous manner along the perimeter of the laminate. The interlayer can be attached to the structural support in a discontinuous manner at various points around the perimeter of the laminate. Any manner of attaching the laminate to the frame by way of the interlayer is considered to be within the scope of the present invention. For example, the frame surrounding the laminate can contain interlayer material that can bond with the glass surface of the laminate and also with the frame; the interlayer can be mechanically anchored to the frame with a screw, hook, nail, or clamp, for example. Mechanical attachment includes any physical constraint of the interlayer by slotting, fitting, or molding a support to hold the interlayer in place within the structural support. The interlayer can be chemically bonded to the frame with an adhesive material, or by using any combination of mechanical and/or chemical means.

In describing attaching or securing the laminate to the frame, page 9, lines 4-11, state:

The interlayer can be attached, or secured, to the frame with or without use of an adhesive material. FIGURE 2A depicts the use of an adhesive, for example.

In FIGURE 2D, the edges of interlayer 2D are self-adhered securely to frame 10D without the use of an additional adhesive. It has been found that an interlayer made from ionomer resin self-adheres securely to most frame materials, such as wood, steel, aluminum and plastics. In some applications it may be desirable to use additional fasteners such as screws, bolts, and clamps along the edge of the frame. Any means of anchoring the interlayer to the frame is suitable for use in the present invention.

Further, in describing Figure 4 at the bottom of page 7, WO 00/64670 states:

FIGURE 4 depicts a frame/laminate assembly wherein the interlayer (19) fills at least part of the void-space between the frame (21) and the surface of the glass layers (18, 20).

Thus, from the above it can be seen that WO 00/64670 does not show a clip that comprises an element that can be interlocked with a component of a second glazing structure as claimed. Therefore, withdrawal of the rejection under 35 USC 102(b) as anticipated by WO 00/64670 is respectfully requested.

US 4,960,631 Walters et al. (“Walters”)

The invention of claim 1 of the subject patent application is not described in Walters.

One difference between the invention and the laminated transparency of the invention is that an element that can be interlocked with a component of a second glazing structure, whereas Walters doesn't teach or suggest such a clip. Claim 1 of the subject application recites elements (5) and (6) as follows:

“(5) the attachment means is a clip useful for aligning and holding the laminate in a retaining channel of the support structure; (6) the clip further comprises an element that can be interlocked with a component of a second glazing element.”

Figure 1 and column 2, lines 33-37 of Walters do not show a clip that comprises an element that can be interlocked with a component of a second glazing structure. Walters is directed to a laminated transparency for aircrafts that contains a flexible epoxy moisture seal about the periphery of the transparency. Figure 1 shows an aircraft window assembly 10 incorporating an edge seal which is the subject of the invention. (Column 2, lines 24-26.) Glass plies 12, 14 and 16 are bonded to interlayers 18 and 20. (Column 2, lines 34-36.) The interlayers 18 and 20 typically include one or more layers of polyvinyl butyral interlayer material, and, to increase strength, an interlayer 22 of urethane material is used. (Column 2, lines 34-37.) The assembly 10 is framed for mounting a matching opening of an aircraft by insert 24 and pan 26, which are made of structurally rigid material, such as aluminum, which includes an opening for a bolt (not shown) to secure the assembly to the aircraft. (Column 2, lines 48-53.) From this description, it can be seen that there is nothing in Walters that

corresponds to the clip of the invention, which can be interlocked with a component of a second glazing structure.

For the above reasons, withdrawal of the rejection under 35 USC 102(b) as anticipated by Walters is respectfully requested.

Claim Amendments And New Claims

Claim 1 is amended to correct an obvious error. The claim is amended to refer to connecting to a second glazing element.

New claims 10-13 are based upon original claims 4-7.

New claims 14-22 are based, among other places, on the description in Figure 2 bridging pages 11-12.

New claims 23-32 are directed to a building structure as described throughout the specification, such as at page 5, lines 3-12, and are otherwise based upon the description in the original claims and on the description in Figure 2 bridging pages 11-12.

Entry and consideration are respectfully requested.

In view of the foregoing, allowance of the above-referenced application is respectfully requested. Should there remain any matters unresolved by this Response, the Examiner is invited to telephone the undersigned at the below-listed direct dial telephone number in order to expedite prosecution.

Respectfully submitted,



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